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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/817,366	03/22/2001	Kazuya Kuriyama	010418	2365

23850 7590 02/25/2004

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EXAMINER

ELEY, TIMOTHY V

ART UNIT PAPER NUMBER

3724

DATE MAILED: 02/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/817,366

**Applicant(s)**

KURIYAMA ET AL.

**Examiner**

Timothy V Eley

**Art Unit**

3724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                                    | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

DETAILED ACTION

*Drawings*

1. The drawings were received on November 12, 2003. These drawings are approved.
2. New corrected drawings are required in this application because the drawings filed March 22, 2001 are clearly informal. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

*Claim Objections*

3. The claims are objected to because they include reference characters, which affect the scope of the claims. The use of reference characters is to be considered as having no effect on the scope of the claims. However, the reference characters as used by applicant actively participate in the recitation of the claims. For, example, "a pair of opposed electrodes(7) and (8)"(claim 1, lines 3 and 4; claim 2, lines 3 and 4; claim 4, lines 3 and 4); "a pair of heat conduction plates(3) and (4)"(claim 1, line 4; claim 2, line 4; claim 4, line 4); "insulating substrates (5) and (6)"(claim 1, line 8); claim 2 line 8); "thermionic element(9)"(claim 1, line 14); etc. Applicant should rewrite these phrases as, --a pair of opposed electrodes(7 and 8)--; --a pair of heat conduction plates(3 and 4)--;

Art Unit: 3724

--insulating substrates(5 and 6)--; and --said thermionic element(9)-- , such that the reference characters do not actively participate in the recitation of the claims. These changes should be made throughout the claims.

Reference characters corresponding to elements recited in the detailed description of the drawings should not affect the scope of the claims. See MPEP § 608.01(m).

*Claim Rejections - 35 USC § 112*

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. The claims remain replete with errors too numerous to mention specifically. The following are examples of such errors:

i. "in . . . pressure"(claim 1, last line). This phrase is awkwardly worded. The layer thickness control member is performed?

ii. "the relevant temperature control device"(claim 1, line 6). This phrase lacks proper antecedent basis.

Art Unit: 3724

iii. "the relevant temperature control element"(claim 2, lines 5 and 6; claim 4, lines 5 and 6). This phrase lacks proper antecedent basis.

iv. "after . . . more"(claim 2, last 4 lines; claim 5, lines 2-4). This phrase is vague, indefinite, and awkwardly and confusingly worded. Also, where is the soft solder layer? Furthermore, what is meant by "soft solder or less" and "soft solder or more"?

v. "at least . . . between"(claim 4, lines 9-11) is awkwardly worded. The terminology, "stood between" is awkward.

vi. "the one . . . flexible"(claim 4, lines 12-14) is awkwardly worded. The terminology, "stood between" is awkward.

vii. "after . . . 170 °C."(claim 4, last 4 lines) is awkwardly worded. The terminology, "stood between" is awkward.

viii. "said soft solder layer"(claim 5, lines 2 and 3) lacks proper antecedent basis.

ix. "a soft solder layer"(claim 5, line 3). Is this the same soft solder layer previously recited in claim 5 or another one?

x. "prior . . . substrate"(claim 6, lines 2-4) is awkwardly worded. The terminology, "stood between" is awkward.

Art Unit: 3724

xi. "after . . . substrate"(claim 7, lines 2-4) is awkwardly worded. The terminology, "stood between" is awkward.

#### *Conclusion*

6. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

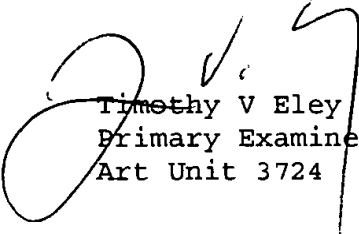
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy V Eley whose telephone number is 703-308-1824. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan N Shoap can be reached on 703-308-1082. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3724

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Timothy V Eley  
Primary Examiner  
Art Unit 3724

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